

ABSTRACT

A crankcase scavenged two-stroke engine (1) comprises a cylinder (15) including scavenging ports (31, 31') and at least one exhaust port, a piston (13), a connecting rod (17), a crankshaft (18) and a generally sealed crankcase (16). The crankcase inducts a fuel/air mixture and is connected to the scavenging ports (31, 31') by means of transfer ducts (3, 3') which, as the piston (13) is travelling from a lower position towards a higher position, are inducting pure air let in from connecting ports (8, 8') near the scavenging ports (31, 31') in the cylinder (15). The transfer duct (3, 3') volume is less than 20% of a volume swept by the piston (13) during an entire revolution of the crankshaft (18). Recesses (10, 10') are formed in an outer periphery of the piston (13), said recesses (10, 10') co-operating with the connecting ports (8, 8') in the cylinder wall for controlling the filling of the transfer ducts (3, 3') with air. An inlet tube (22) in the cylinder wall supplies the air/fuel mixture, said inlet tube (22) being connected to the crankcase (16) and covered by the piston (13) as the piston (13) is in the lower position, and open to the crankcase (16) as the piston (13) is in the higher position.

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FIG 1